

**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND claims 1, 4-5, 8, 10-11, 14, and 16-17 and ADD new claim 20 in accordance with the following:

1. (CURRENTLY AMENDED) A measuring apparatus cooperating with a service device that provides position information to a request apparatus requesting from the measuring apparatus a position of a search object, comprising:

a unit accepting from the request apparatus a search request for searching the position of the search object, wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located;

a unit calculating only a distance between the measuring apparatus and the search object;

a unit acquiring present position information of the measuring apparatus; and

a unit transmitting the present position information and the distance to the service device, wherein the service device is placed at a predetermined fixed location, ~~and~~

wherein the measuring apparatus is mobile and a plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

2. (ORIGINAL) A measuring apparatus according to Claim 1, further comprising:

a unit transmitting radio waves receivable by the search object; and

a unit receiving a response to the radio waves from the search object.

3. (ORIGINAL) A measuring apparatus according to Claim 1, wherein the search request contains information capable of specifying the request apparatus, and

the unit transmitting the present position information and the distance information together with the specifiable information to the service device.

4. (CURRENTLY AMENDED) A service device for providing position information of a search object to a request apparatus requesting the position information of the search object, comprising:

a unit receiving, from a plurality of measuring apparatuses measuring a position of the search object, present position information of each of the plurality of measuring apparatuses and information about a distance between each of the plurality of measuring apparatuses making the measurement and the search object, and calculating the position information of the search object, based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatuses; and

a unit transmitting to the request apparatus the position information of the search object that has been calculated based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatuses,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located,

wherein the service device is placed at a predetermined fixed location, ~~and~~

wherein each of the plurality of measuring apparatuses is mobile and calculates only a distance between each of the plurality of measuring apparatuses and the search object, and the plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position information of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

5. (CURRENTLY AMENDED) A request apparatus provided with a request for position information of a search object through a system including a service device providing the position information of the search object and a plurality of measuring apparatuses for reporting distances to the search object to the service device, comprising:

a unit transmitting a search request for the position information of the search object to the measuring apparatuses existing in a periphery of the request apparatus; and

a unit receiving via the service device the position information of the search object calculated based upon the reporting from the measuring apparatuses, wherein the service

device is placed at a predetermined fixed location,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located,~~and~~

wherein each of the plurality of measuring apparatuses is mobile and calculates only a distance between each of the plurality of measuring apparatuses and the search object, and the plurality of measuring apparatuses located around the search object cooperate with the service device,and

wherein the position information of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

6. (ORIGINAL) A request apparatus according to Claim 5, wherein the search request contains information capable of specifying the individual request apparatus and information for designating the search object, and

the receiving unit receives the position information in accordance with the specifiable information.

7. (PREVIOUSLY PRESENTED) A request apparatus according to Claim 5, further comprising a unit receiving setting of a search object range in the periphery of the request apparatus,

wherein the transmitting unit includes transmission gain control unit controlling electromagnetic waves carrying the search request at a predetermined receipt electric power level in the search object range.

8. (CURRENTLY AMENDED) A method of a plurality of measuring apparatuses cooperating with a service device that provides position information to a request apparatus requesting a position of a search object, comprising:

accepting from the request apparatus a search request for searching the position of the search object;

transmitting radio waves receivable by the search object;

receiving a response to the radio waves from the search object;

calculating only a distance between each of the plurality of measuring apparatuses and the search object from the response received;

acquiring present position information of each of the plurality of measuring apparatuses;

and

transmitting the present position information and the distance of each of the plurality of measuring apparatuses to the service device, wherein the service device is placed at a predetermined fixed location,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located, ~~and~~

wherein each of the plurality of measuring apparatuses is mobile, and the plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

9. (PREVIOUSLY PRESENTED) A position information measuring method according to Claim 8, wherein the search request contains information capable of specifying the request apparatus, and

transmitting the present position information and the distance of each of the plurality of measuring apparatuses together with the specifiable information to the service device.

10. (CURRENTLY AMENDED) A method of providing position information of a search object to a request apparatus requesting the position information of the search object, comprising:

receiving, from a plurality of measuring apparatuses that each measures a position of the search object in response to the request apparatus requesting the position information of the search object from each of the plurality of measuring apparatuses, present position information of each of the plurality of measuring apparatuses and information about a distance between each of the plurality of measuring apparatuses making the measurement and the search object;

calculating the position information of the search object, based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatuses; and

transmitting to the request apparatus the position information of the search object that has been calculated based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatus,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located, ~~and~~

wherein each of the plurality of measuring apparatuses is mobile and calculates only a distance between each of the plurality of measuring apparatuses and the search object, and the plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position information of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

11. (CURRENTLY AMENDED) A method of providing information of a search object through a system including a service device that provides the position information of the search object and a plurality of measuring apparatuses for reporting distances to the search object to the service device, comprising:

transmitting, by a request apparatus, a search request for the position information of the search object to the measuring apparatuses existing in a periphery of the request apparatus; and

receiving via the service device the position information of the search object calculated based upon the reporting from the measuring apparatuses, wherein the service device is placed at a predetermined fixed location,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located, and

wherein each of the plurality of measuring apparatuses is mobile and calculates only a distance between each of the plurality of measuring apparatuses and the search object, and the plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position information of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

12. (ORIGINAL) A position information requesting method according to Claim 11, wherein the search request contains information capable of specifying the individual request apparatus and information for designating the search object, and

receiving the position information in accordance with the specifiable information.

13. (PREVIOUSLY PRESENTED) A position information requesting method

according to Claim 11, further comprising:

receiving setting of a search object range in the periphery of the request apparatus, and  
controlling electromagnetic waves carrying the search request at a predetermined receipt  
electric power level in the search object range.

14. (CURRENTLY AMENDED) A storage medium that stores an executable-by-computer position information measuring program for making a plurality of measuring apparatuses cooperate with a service device that provides position information to a request apparatus requesting from the plurality of measuring apparatuses a position of a search object, according to a process comprising:

accepting from the request apparatus a search request for searching the position of the search object;

transmitting radio waves receivable by the search object;

receiving a response to the radio waves from the search object;

calculating only a distance between each of the plurality of measuring apparatuses and the search object from the response received;

acquiring present position information of each of the plurality of measuring apparatuses;  
and

transmitting the present position information and the distance of each of the plurality of measuring apparatuses to the service device, wherein the service device is placed at a predetermined fixed location,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located, ~~and~~

wherein each of the plurality of measuring apparatuses is mobile, and the plurality of measuring apparatuses located around the search object cooperate with the service device, and  
wherein the position information of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

15. (PREVIOUSLY PRESENTED) A storage medium that stored a position information measuring program according to Claim 14, wherein the search request contains information capable of specifying the request apparatus, and

transmitting the present position information and the distance of each of the plurality of measuring apparatuses together with the specifiable information to the service device.

16. (CURRENTLY AMENDED) A storage medium that stores a program for making a computer to provide position information to a request apparatus requesting the position information of a search object, according to a process comprising:

receiving, from a plurality of measuring apparatuses that each measures a position of the search object in response to the request apparatus requesting the position information of the search object from each of the plurality of measuring apparatuses, present position information of each of the plurality of measuring apparatuses and information about a distance between each of the plurality of measuring apparatuses making the measurement and the search object;

calculating the position information of the search object, based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatuses; and

transmitting to the request apparatus the position information of the search object that has been calculated based on the present position information and the information about the distance to the search object received from each of the plurality of measuring apparatuses, wherein the computer is placed at a predetermined fixed location,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located, ~~and~~

wherein each of the plurality of measuring apparatuses is mobile and calculates only a distance between each of the plurality of measuring apparatuses and the search object, and the plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position information of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

17. (CURRENTLY AMENDED) A storage medium that stores an executable-by-computer position information requesting program for making a request apparatus to provide information of a search object through a system including a service device for providing the position information of the search object and a plurality of measuring apparatuses for reporting distances to the search object to the service device, according to a process comprising:

transmitting a search request for the position information of the search object to the measuring apparatuses existing in a periphery of the request apparatus; and

receiving via the service device the position information of the search object calculated

based upon the reporting from the measuring apparatuses, wherein the service device is placed at a predetermined fixed location,

wherein a search range, within which the position of the search object is requested, is determined as a search range in which the request apparatus is located, ~~and~~

wherein each of the plurality of measuring apparatuses is mobile and calculates only a distance between each of the plurality of measuring apparatuses and the search object, and the plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position information of the search object is calculated by solving an equation of circles, each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.

18. (ORIGINAL) A storage medium that stored a position information requesting program according to Claim 17, wherein the search request contains information capable of specifying the individual request apparatus and information for designating the search object, and

receiving the position information in accordance with the specifiable information.

19. (PREVIOUSLY PRESENTED) A storage medium that stored a position information requesting program according to Claim 17, wherein the process of the request apparatus further comprises receiving setting of a search object range in the periphery of the request apparatus, and

transmitting a transmission gain control controlling electromagnetic waves carrying the search request at a predetermined receipt electric power level in the search object range.

20. (NEW) A measuring apparatus cooperating with a service device that provides position information to a request apparatus requesting from the measuring apparatus a position of a search object, comprising:

a unit calculating only a distance between the measuring apparatus and the search object; and

a unit transmitting the present position information and the distance to the service device, wherein a plurality of measuring apparatuses located around the search object cooperate with the service device, and

wherein the position of the search object is calculated by solving an equation of circles,



Serial No. 10/784,182

each circle having a radius equal to a distance between one of the plurality of measuring apparatuses and the search object.